

**REMARKS**

Further to Applicants' August 15, 2006 Examiner interview, Applicants have amended the claims in accordance with the Examiner's suggestions. Applicants' amendments clarify the claims and specification to more clearly recite the equation of radiative transfer.

Claims 1, 9, 12, 15, 19-23, 28, 29, 37, 40, 43, 47-51 and 56-60 were rejected under 35 U.S.C. 103(a) as being unpatentable over Schotland in view of Vartanian. As amended, at least the claimed (1) use of the "integro-differential equation of radiative transfer that contains a streaming term, and an integral term" and (2) "generating an objective function that is proportional to the difference between the prediction given by the integro-differential equation of radiative transfer and the actual measurement" are not taught or suggested by Schotland and Vartanian.

Claims 2-8, 16, 17, 24-27, 30-36, 44, 45 and 52-55 were rejected under 35 U.S.C. 103(a) as being unpatentable over Schotland and Vartanian as applied to claims 1 and 29, and further in view of Muraca. Because claims 1 and 29 are believed to be allowable, and claims 2-8, 16, 17, 24-27, 30-36, 44, 45 and 52-55 all depend from and further limit 1 or 29, these claims are also believed to be allowable.

Applicants believe that the claims as amended in accordance with the Examiner's suggestions are now in condition for allowance. If any issues remain, or if the Examiner has any suggestion for expediting allowance of this application, he is respectfully requested to contact the undersigned at the telephone number listed below.

Favorable consideration is respectfully requested.

**CONCLUSION**

Based on the foregoing amendments and remarks, Applicants respectfully request reconsideration and withdrawal of the rejection of claims and allowance of this application.

**AUTHORIZATION**

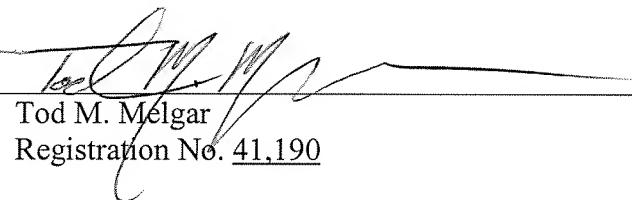
The Commissioner is hereby authorized to charge any additional fees which may be required for consideration of this Amendment to Deposit Account No. **13-4500**, Order No. 0887-4150US1. A DUPLICATE OF THIS DOCUMENT IS ATTACHED.

In the event that an extension of time is required, or which may be required in addition to that requested in a petition for an extension of time, the Commissioner is requested to grant a petition for that extension of time which is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to Deposit Account No. **13-4500**, Order No. 0887-4150US1. A DUPLICATE OF THIS DOCUMENT IS ATTACHED.

Respectfully submitted,  
MORGAN & FINNEGAN, L.L.P.

Dated: October 18, 2006

By:

  
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